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COTTON GINNING, HANDLING, AND MARKETING

Texas Coastal Bend and  
Lower Rio Grande Valley Areas

Joseph L. Ghetti and W. C. McArthur

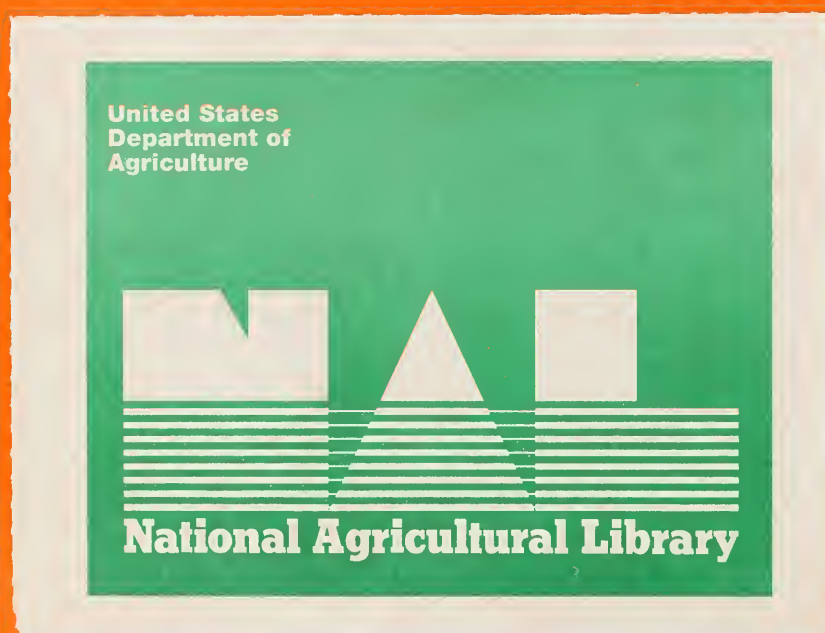
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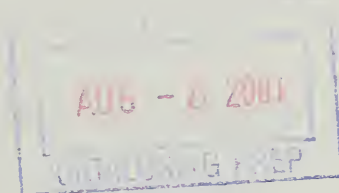
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## COTTON GINNING, HANDLING, AND MARKETING

Texas Coastal Bend and  
Lower Rio Grande Valley Areas



Joseph L. Ghatti and W. C. McArthur

August 1978

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COTTON GINNING, HANDLING, AND MARKETING  
Texas Coastal Bend and Lower Rio Grande Valley Areas

Joseph L. Ghetti and W. C. McArthur<sup>1/</sup>

The areas reflect marked differences in cotton production and handling practices. While the acreage has declined sharply the last several years, cotton still remains an important crop in several counties within the region. This report includes information on cotton ginning, handling, and marketing in the Texas Coastal Bend and Lower Rio Grande Valley areas (figure 1).

NORTHERN COASTAL BEND

The Northern Bend area includes 16 counties located between the Texas-Louisiana state line and Calhoun county, Texas near Corpus Christi (figure 1). The area follows the coast line and extends up to three counties inland. The area encompasses two areas commonly referred to as the Southern Colorado-Brazos River bottoms.

Planting in the Northern Bend begins about March 15. Ginning usually commences the first week in August and ends between October 15 and October 21. About 50 percent of the crop is ginned between August 15 and September 15.

Cotton Varieties and Grades

Varieties of Cotton Grown

In 1976, 42 percent of the cotton acreage was Deltapine, 52 percent Stoneville, 3 percent Tamcot, and 3 percent in other varieties. Virtually all of the acreage is machine picked.

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# SELECTED COTTON PRODUCTION AREAS IN TEXAS

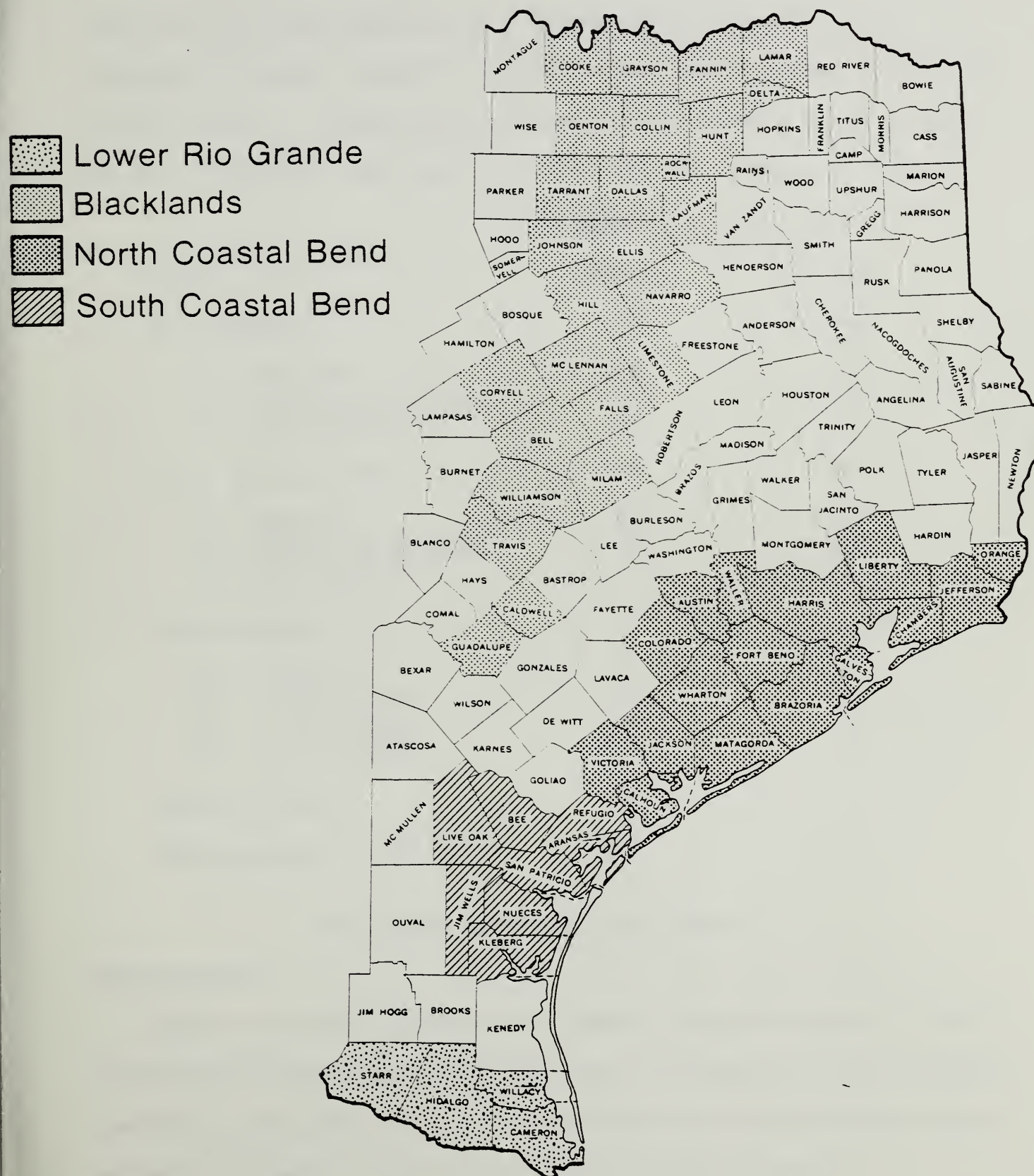


Figure 1



### Cotton Grades Produced

In 1975, about 62 percent of the cotton crop graded white and the remaining 38 percent graded light spotted. Within the white grade, 43 percent was Strict Low Middling and 16 percent Middling grade cotton. An estimated 69 percent stapled 34 (1-1/16 inches) and 25 percent stapled 35 (1-3/32 inches). Average micronaire was 4.7 and average fiber strength was 85.4 1,000 PSI. Additional data for 1974 and 1975 are as follows:

|                                   | 1974           | 1975           |
|-----------------------------------|----------------|----------------|
| <u>Grade</u>                      | <u>Percent</u> | <u>Percent</u> |
| White Cotton:                     | 53             | 62             |
| 31 - Middling                     | 6              | 16             |
| 41 - Strict Low Middling          | 44             | 43             |
| 51 - Low Middling                 | 3              | 3              |
| Light spotted cotton:             | 47             | 38             |
| 32 - Middling                     | 19             | 3              |
| 42 - Strict Low Middling          | 28             | 30             |
| 52 - Low Middling                 | --             | 5              |
| <u>Staple length</u>              |                |                |
| 32 - 1 inch                       | 1              | 6              |
| 33 - 1 1/32 inches                | 32             | --             |
| 34 - 1 1/16 inches                | 61             | 69             |
| 35 - 1 3/32 inches                | 4              | 25             |
| <u>Fineness (Mike)</u>            | 4.7            | 4.2            |
| <u>Fiber strength (1,000 PSI)</u> | 86.5           | 83.7           |

### Seed Cotton Harvesting and Handling

#### Harvest Method

Nearly all cotton in the Northern Bend is machine picked. In 1975, there were 927 mechanical pickers and only 33 mechanical cotton strippers operating in the area. Thus, the production practices including cotton varieties are keyed to the machine picking method of harvest.



### Cotton Handling

Most growers haul their cotton to the gin immediately after harvest. Hauling distances average about seven miles. Module or rick storage of cotton is not a practice in this area. Fifty percent of the ginners own trailers which they make available at no cost to their patrons. A few ginners also lease trailers from gins in West Texas.

### Cotton Ginning

Cotton ginning facilities are well dispersed throughout the cotton producing areas of the Northern Bend. The exception is a six-county area to the east of Houston where little production occurs and there are no ginning or storage facilities. While adequate in terms of size, storage facilities in the rest of the area are not well located with respect to location of production. Furthermore, these storage facilities do not have recompression equipment.

### Number of Gins and Volume

Sixty-eight gin plants are located in the Northern Bend. Of this number, only 45 operated in 1974 and 1975 with indications that the same number would operate in 1976 (table 1). About one-half the plants are located in either Fort Bend or Wharton counties where 26 of the plants are active. The gins in these two counties handle about 75 percent of the area's production.

There are 14 cooperative gin organizations in the Northern Bend. Eight of these gins are located in Wharton county. Two cooperatives are located in Fort Bend county with the remaining four spread throughout the cotton producing counties.





Table 1. Northern Bend region gin plants and ginnings by county, 1974, 1975, and 1976

| Counties <sup>1/</sup> | Number of gins |        |             | Ginnings |                    |       | 1976 gin plants |        |        |
|------------------------|----------------|--------|-------------|----------|--------------------|-------|-----------------|--------|--------|
|                        | :              |        |             | :        |                    |       | :               |        |        |
|                        | Total          | Active | Cooperative | Total    | Average            |       | Total           | Active |        |
|                        | Plants         | Plants | Plants      | Bales    | Bales              | Bales | Plants          | Plants | Plants |
|                        |                |        |             | 1974     | 1975 <sup>2/</sup> | 1974  | 1975            | 1975   | Active |
| Calhoun                | 5              | 2      | 1           | 2,451    | 220                | 1,226 | 110             | 5      | 2      |
| Victoria               | 4              | 0      | 0           | 0        | 0                  | 0     | 0               | 4      | 0      |
| Jackson                | 6              | 3      | 1           | 3,420    | 980                | 1,140 | 327             | 6      | 3      |
| Matagorda              | 5              | 4      | 1           | 3,414    | 520                | 854   | 105             | 5      | 4      |
| Warton                 | 17             | 14     | 8           | 31,132   | 12,384             | 2,224 | 885             | 17     | 14     |
| Colorado               | 2              | 2      | 0           | 3,087    | 800                | 1,544 | 400             | 2      | 2      |
| Austin                 | 9              | 3      | 0           | 2,080    | 899                | 693   | 300             | 9      | 3      |
| Waller                 | 1              | 1      | 0           | 105      | 55                 | 105   | 55              | 1      | 1      |
| Fort Bend              | 14             | 12     | 2           | 24,879   | 15,557             | 2,073 | 1,296           | 14     | 12     |
| Brazoria               | 5              | 4      | 1           | 6,579    | 5,255              | 1,645 | 1,314           | 5      | 4      |
| Total                  | 68             | 45     | 14          | 77,147   | 36,670             | 1,714 | 815             | 68     | 45     |

<sup>1/</sup> Counties with neither active nor inactive gin plants: Galveston, Harris, Liberty, Chambers, Jefferson, and Orange.

<sup>2/</sup> Estimated.





The 68 plants have a combined capacity of 355.7 bales per hour or 322,264 bales per 906-hour ginning season. Average hourly capacity is nine bales and gin capacity ranges from 3.4 to 20.1 bales per hour. The typical gin operated 7.6, 8.7 and 6.4 weeks in 1972, 1974 and 1975, respectively. Three plants have automatic sampling equipment and all but two have a modified-flat bale press. The remaining two plants have flat bale presses. Plant renovation since 1970 has been primarily limited to minor additions or replacements. However, some dismantled equipment has been employed to increase ginning capacity.

Total ginnings in 1975 were 36,690 bales compared to 77,147 in 1974. Average volume per gin was 815 and 1,714 bales in 1975 and 1974, respectively.

Ginning charges in the Northern Bend are based on a variety of methods: (1) a charge per hundredweight of seed cotton; (2) number 1 plus a charge for bagging and ties; (3) a charge per hundredweight of the combined weight of cottonseed and lint; and (4) number 3 plus a charge for bagging and ties. The average charges for 1974 and 1975 are shown in table 2.

Table 2. Northern Bend: Average ginning charge, by method and year, 1974 and 1975

| Method <sup>1/</sup> | : | 1974            |                   | : | 1975            |                   |
|----------------------|---|-----------------|-------------------|---|-----------------|-------------------|
|                      | : |                 |                   | : |                 |                   |
|                      | : | <u>Dollars</u>  | <u>Bagging</u>    |   | <u>Dollars</u>  | <u>Bagging</u>    |
|                      | : | <u>per cwt.</u> | <u>&amp; ties</u> |   | <u>per cwt.</u> | <u>&amp; ties</u> |
|                      | : |                 |                   |   |                 |                   |
| Method 1             | : | 2.10            | --                |   | 2.24            | --                |
| Method 2             | : | 1.61            | 9.48              |   | 1.60            | 9.52              |
| Method 3             | : | 2.05            | --                |   | 2.10            | --                |
| Method 4             | : | 1.40            | 8.50              |   | 1.40            | 8.50              |

<sup>1/</sup> Method 1: Charge per hundredweight of seed cotton; Method 2: Charge per hundredweight of seed cotton plus bagging and ties; Method 3: Charge per hundredweight of cottonseed and lint; Method 4: Charge per hundredweight of cottonseed and lint plus bagging and ties.



Ginning charges under the most common methods were: (1) charge per hundredweight of seed cotton; \$2.10 in 1974 and \$2.24 in 1975, and (2) charge per hundredweight of cottonseed and lint plus bagging and ties; \$1.40 per hundredweight plus \$8.50 per bale in both 1974 and 1975. The fire insurance and gin-warehouse transportation charges are in addition to the ginning charge. These charges averaged \$0.30 and \$1.81 per bale in 1974 and \$0.49 and \$2.54 in 1975, respectively.

About 64 percent of the gins derive income only from ginning cotton while the remaining 36 percent not only gin cotton, but also sell planting seed, trade in lint cotton and cottonseed or sell supplies. Of the 2.4 million dollar gross income of area gins in 1975, 79 percent was attributed to ginning revenue. Twenty-three percent of the plants sell planting seed and 15 percent bought at least part of the cotton they ginned.

Nearly all sampling of cotton is done by hand at the gin yard by a bonded sampler. As indicated three gins have automatic sampling equipment. About 92 percent of the crop is sampled at the gin with the remaining 8 percent being sampled at the warehouse.

The average bale of machine-picked cotton weighed 1,478 and 1,475 pounds in 1974 and 1975, respectively. The corresponding lint weights were 497 and 482 pounds.

#### Transportation, Warehousing and Compression

Baled lint is moved almost immediately from the gin platform to either a warehouse in Fort Bend county (20 percent) or Houston in Harris county (5 percent), to port facilities in Corpus Christi (30 percent) or Galveston (5 percent), or directly to a mill area (40 percent). Nearly all cotton moving directly to a mill goes to Anderson, South Carolina, by rail (90 percent or truck (10 percent). The rates per bale were \$8.74 by rail and



\$9.50 by truck in 1975. Most of the cotton moving to Corpus Christi is from Warton county and all moves by truck at \$2.50 per bale. The truck rate to Houston or Galveston is \$3.25 per bale and all gin-warehouse movement is by truck. Lint moving to Fort Bend county for storage is assessed a \$0.50 per bale charge for transportation.

The warehouse in Fort Bend county (29,775 bale capacity) is essentially the only facility available to cotton in the Northern Bend area as the Houston facility serves primarily as a concentration point for the Swig Company (table 3). As a result, baled lint must be transported a considerable distance for storage.

Charges per bale for services performed by storage and handling facilities in 1975 were: receiving \$1.50; storage \$0.75 per month; recompression \$3.25; and shipping \$1.50. Thus a typical bale of cotton incurred total charges of \$9.25 for the services, assuming an average storage period of four months. Additional charges would be incurred for any extra service provided by the facility. In addition, cotton stored in Houston or Fort Bend county will bear the transportation cost to compress or port facilities for recompression prior to shipment.

Domestic shipments are primarily by rail. An estimated 90 percent of these shipments are by rail with the remaining 10 percent by truck. Rail and truck rates from the region to major mill areas and export points are shown in table 4.

#### Merchandising

Northern Bend producers have traditionally sold their cotton at the gin yard. However, the importance of forward contracting has been increasing the last few years. In 1976, an estimated 70 percent of the crop was







Table 3. Commercial storage facilities in the Northern Bend area, by county, 1975

| County    | : | Warehouse     | : | Capacity     |
|-----------|---|---------------|---|--------------|
|           | : |               | : |              |
|           |   | <u>Plants</u> |   | <u>Bales</u> |
| Harris    |   | 1             |   | 105,000      |
| Fort Bend |   | 1             |   | 29,775       |
| Total     |   | 2             |   | 134,775      |

Table 4. Rail and truck rates to primary destination, 1975, Northern Bend area

| Destination    | : | Rail                    | : | Truck |
|----------------|---|-------------------------|---|-------|
|                | : |                         | : |       |
|                |   | <u>Dollars per bale</u> |   |       |
| Houston        |   | 1.87                    |   | 3.25  |
| Galveston      |   | 2.16                    |   | 3.25  |
| Corpus Christi |   | 1.87                    |   | 2.50  |
| 200 A          |   | 9.22                    |   | 10.00 |
| 201 B          |   | 8.74                    |   | 9.50  |
| 231 Macon      |   | 7.87                    |   | 8.50  |



contracted prior to ginning. The primary contractors are Lowenstein, a mill buyer, and the Brazos Cotton Company, a Texas firm. The free cotton, amounting to about 30 percent of the crop, is handled by various local buyers either directly or through commission buyers and by ginning firms. Gins bought 7 percent of the free cotton in 1975 compared with 72 percent in 1971. In addition, Plains Cotton Cooperative Association of Lubbock has handled a limited volume of the crop.

About 95 percent of the crop goes to domestic mills, primarily 201 mills in South Carolina. Exports are generally through the Galveston port.

#### SOUTHERN COASTAL BEND

The Southern Bend area includes eight counties centering around Corpus Christi in southeast Texas. Cotton and grain sorghum are the major crops in this area. Ninety percent of the area's cotton is produced in San Patricio and Nueces counties.

#### Cotton Varieties and Grades

##### Varieties of Cotton Grown

Since 1972, there has been a tendency to plant cotton varieties adapted to machine stripping. Tamcot varieties accounted for 23 percent of the planted acreage in 1974, 78 percent in 1975, and 92 percent in 1976 (table 5). Stoneville and Deltapine have been the second most popular varieties.

##### Cotton Grades Produced

The 1975 crop graded 87 percent white, 11 percent light spotted and 2 percent spotted. The 1974 crop was 75 percent white, 24 percent light spotted and one percent spotted. Cotton produced in the area is long



Table 5. Southern Bend: Estimated percentage of cotton acreage planted to variety types, 1974, 1975 and 1976

| Year | Variety types |           |         |        |        |                     |
|------|---------------|-----------|---------|--------|--------|---------------------|
|      | Stoneville    | Deltapine | Lankart | Tamcot | Quapaw | Other <sup>1/</sup> |
|      | Percentage    |           |         |        |        |                     |
| 1974 | 34            | 1         | 37      | 23     | --     | 5                   |
| 1975 | 8             | 1         | 9       | 78     | 3      | 1                   |
| 1976 | 1             | 2         | --      | 92     | 1      | 4                   |

<sup>1/</sup> Primarily TPSA, Northern Star, Coker, Anton, Hybee, and Lockett.

staple as 75 percent of the 1974 crop and 87 percent of the 1975 crop was 1-1/32 inch or longer. Micronaire averaged 4.1 in 1975 and 3.9 in 1974 while fiber strength (Pressley) was 80.6 in 1975 and 80.9 in 1974.

Classing data were as follows:

| <u>Grade</u>                     | 1975           | 1974           |
|----------------------------------|----------------|----------------|
|                                  | <u>Percent</u> | <u>Percent</u> |
| White Cotton:                    |                |                |
| 31 - Middling                    | 2              | 30             |
| 41 - Strict Low Middling         | 41             | 36             |
| 50 - Low Middling Plus           | 3              | --             |
| 51 - Low Middling                | 40             | 9              |
| 61 - Strict Good Ordinary        | 1              | --             |
| Light Spotted Cotton             |                |                |
| 32 - Middling                    | --             | 11             |
| 42 - Strict Low Middling         | 10             | 13             |
| 52 - Low Middling                | 1              | --             |
| Spotted Cotton                   |                |                |
| 43 - Strict Low Middling Spotted | 1              | --             |
| 53 - Low Middling Spotted        | 1              | 1              |
| Grass-bark reduction             | 3              | 3              |
| <u>Staple</u>                    |                |                |
| 31 (31/32 inch)                  | 1              | 5              |
| 32 (32/32 inch)                  | 12             | 21             |
| 33 (1-1/32 inches)               | 44             | 59             |
| 34 (1-1/16 inches)               | 42             | 15             |
| 35 (1-3/32 inches)               | 1              | --             |



## Seed Cotton Harvesting and Handling

### Harvest Method

Machine stripping of cotton is the most common method of harvest in the Southern Bend. This method accounted for about 60 percent of the crops in 1974 and 1975. Mechanical cotton pickers were used to harvest the remainder of the crop.

### Cotton Handling

The conventional cotton trailer has traditionally been used in the Southern Bend to accumulate, transport and store seed cotton between the harvesting and ginning phases of the marketing process. Trailer ownership control is concentrated with gin owners as 97 percent of the gins own trailers while very few producers maintain a trailer fleet. Trailers range in size from three to six-bale capacity with most capable of holding only three to four bales of machine stripped cotton or 4.5 to six bales of machine picked cotton.

Some gins, instead of buying trailers for their patrons use, lease trailers from gin plants in West Texas. This is possible since the West Texas crop is considerably later than that of the Southern Bend.

A small volume of seed cotton has been stored prior to ginning since 1973. An estimated 2 percent of the crop is moduled; however, there are some 10 to 12 module builders in the region. This is a large number relative to the area's production and to module numbers in other areas. This perhaps indicates a trend toward moduling even though less than 2,000 bales were moduled in 1974 or 1975. Module ownership is divided equally between producers and gins. A small volume of the crop was placed in rick storage in 1973; however, no seed cotton has been ricked since that time.





Even though the area is relatively small, farm to gin distance ranges between four and 150 miles, a greater range than found in any other producing area in the Cotton Belt. However, the hauling distance to a gin is less than 25 miles for most cotton producers in the area.

### Cotton Ginning

#### Number of Gins and Volume

There are 42 gin plants in the area; however, only 36 have operated since 1974, table 6. Active plants are located in all counties except Aransas. Further, 81 percent of the active gins are located in either San Patricio or Nueces counties. These 29 plants also account for 69 percent of the total active and inactive plants and gin 90 percent of the area's cotton, table 6.

Cooperative plants represent 40 percent of the total firms and 47 percent of the active firms. All cooperative facilities are active and 12 of 17 such operations are located in either San Patricio or Nueces counties. These gins processed about 65 percent of the regions production. Independent gin ownership accounts for the remaining operations. Cotton ginning and cottonseed grading are generally the only source of revenue for gins. About 2 percent of the crop is bought by independent gins. Most of the area's cottonseed is purchased by gins who in turn sell to oil mills, grossing about 20 percent of the farm value of cottonseed.

Active plants in the area ginned 108,990 bales in 1974 and 61,940 bales in 1975, averaging 3,028 and 1,721 bales, respectively. However, the active plants combined had the capacity to gin 381,788 bales in a 906-hour season. Total ginning capacity averaged 421.4 bales per hour. Gins in the area range in size from 9.0 to 21.9 bales per hour.



Table 6. Gin plants and ginnings by county, 1974, 1975, and 1976, Southern Bend area

| Counties <sup>1/</sup> | Number of gins |        | Ginnings    |         |                    |       | 1976 gin plants |        |
|------------------------|----------------|--------|-------------|---------|--------------------|-------|-----------------|--------|
|                        | :              |        | :           |         |                    |       | :               |        |
|                        | Total          | Active | Cooperative | Total   | Average            |       | Total           | Active |
|                        | Plants         | Plants | Plants      | Bales   | Bales              | Bales | Plants          | Plants |
|                        |                |        |             | 1974    | 1975 <sup>2/</sup> | 1974  | 1975            |        |
| Bee                    | 2              | 1      | 1           | 1,875   | 592                | 1,875 | 592             | 2      |
| Refugio                | 3              | 2      | 2           | 2,629   | 1,912              | 1,315 | 806             | 3      |
| Live Oak               | 1              | 1      | 0           | 561     | 0                  | 561   | 0               | 1      |
| San Patricio           | 12             | 12     | 4           | 45,070  | 31,620             | 3,756 | 2,635           | 12     |
| Nueces                 | 20             | 17     | 8           | 52,769  | 25,755             | 3,104 | 1,515           | 20     |
| Kleberg                | 1              | 1      | 1           | 4,286   | 1,811              | 4,286 | 1,811           | 1      |
| Jim Wells              | 3              | 2      | 1           | 1,800   | 250                | 900   | 125             | 3      |
| Total                  | 42             | 36     | 17          | 108,990 | 61,940             | 3,028 | 1,721           | 42     |

<sup>1/</sup> Counties with neither active nor inactive gin plants: Aransas.

<sup>2/</sup> Estimated.



Although no new plants have been constructed in the last seven years, there has been a trend to higher capacity gins. All gins have added equipment capable of processing machine-stripped cotton and a few have added higher capacity gin stands. Stick machines have replaced bur machines, thus increasing the hourly capacity. More cleaning equipment has been added and the number of drying stages has been reduced from three to two. Much of the renovation has been accomplished with the use of used rather than new equipment. As a result of the renovation in the area, ginning capacity has not declined as rapidly as gin numbers. All gin presses in the region are modified-flat bale. Further, there is no automatic sampling equipment in the area and samples are cut at the warehouse.

#### Ginning Charges

The average bale of machine-stripped cotton in the Southern Bend area in 1975 required 2,146 pounds of seed cotton to yield 487 pounds of lint. In 1974, comparable weights were 2,197 pounds of seed cotton netting a 487 pound lint bale.

Ginning charges are based on a charge per hundredweight of seed cotton plus an additional charge for bagging and ties. There is a slight variance in the charge per hundredweight between stripped and picked cotton; however, bagging and tie cost is constant. The latter cost amounted to \$9.81 per bale in 1974 and \$9.60 in 1975 (table 7). Yet, it should be noted that some plants ginned both types of seed cotton at the same rate per hundredweight. Total average ginning charges for a 480 pound net weight bale of machine-picked lint cotton was \$32.25 and \$31.45 in 1974 and 1975, respectively. For machine-stripped cotton, total ginning charges were \$41.89 per bale in 1974 and \$40.98 per bale in 1975. The average cost of cotton insurance





Table 7. Southern Bend: Average weight of seed and lint cotton per bale and associated ginning charges by harvest method, 1974 and 1975

| Year and<br>harvest method | : Average bale |        | : Ginning charge            |                             |                             | : Gin- <u>1/</u><br>warehouse<br>: transportation |
|----------------------------|----------------|--------|-----------------------------|-----------------------------|-----------------------------|---------------------------------------------------|
|                            | : Seed         | :      | : Seed                      | : Bagging                   | : Insurance                 |                                                   |
|                            | : cotton       | : Lint | : cotton                    | : and ties                  | :                           |                                                   |
|                            | <u>Pounds</u>  |        | <u>Dollars<br/>per cwt.</u> | <u>Dollars<br/>per bale</u> | <u>Dollars<br/>per bale</u> | <u>Dollars<br/>per bale</u>                       |
| 1974:                      |                |        |                             |                             |                             |                                                   |
| Machine-picked             | 1,569          | 490    | 1.43                        | 9.81                        | .30                         | 1.25                                              |
| Machine-stripped           | 2,197          | 487    | 1.46                        | 9.81                        | .30                         | 1.25                                              |
| 1975:                      |                |        |                             |                             |                             |                                                   |
| Machine-picked             | 1,539          | 488    | 1.42                        | 9.60                        | .54                         | 1.38                                              |
| Machine-stripped           | 2,146          | 487    | 1.49                        | 9.60                        | .54                         | 1.38                                              |

1/ To Corpus Christi port facilities.

added \$0.30 per bale in 1974 and \$0.54 per bale in 1975. Furthermore, average gin-warehouse transportation cost added \$1.25 and \$1.38 per bale in 1974 and 1975, respectively (table 7).

#### Transportation, Warehousing and Compression

Since there are no warehouses or warehouse facilities in the area, the baled cotton is moved from the gin platform to mill locations immediately after ginning. About 10 percent of the crop moves directly to mill areas (mostly to Anderson, South Carolina) while most of the crop is moved by truck to port facilities located at Corpus Christi. Transportation cost to Corpus Christi was \$1.38 per bale in 1975. Shipments to Anderson, South Carolina are 90 percent by rail and 10 percent by truck. Rail and truck rates are \$8.74 and \$9.50 per bale, respectively.

Fifty percent of the crop moves to Corpus Christi and later to domestic mills in South Carolina (90 percent by rail). Furthermore, 20 percent of



of the crop moves to Corpus Christi and is exported from there while another 20 percent is shipped export from Galveston via Corpus Christi. Rail transportation is used between Corpus Christi and Galveston with the rate being \$4.03 per bale.

Average charges per bale in 1975 by the four major warehousing services for the portion of the Southern Bend crop stored at Corpus Christi were:

| <u>Service</u>      | <u>Dollars per bale</u> |
|---------------------|-------------------------|
| Receiving           | \$1.50                  |
| Storage             | .75/month               |
| Compression         | 3.25                    |
| Shipping            | 1.50                    |
| Total <sup>1/</sup> | \$9.25                  |

#### Merchandising

While producers in this area have been accustomed to selling their cotton at the gin, they presently rely heavily on forward contracting. Various kinds of contracts are offered Southern Bend growers. Some contracts are for basis grade 41, staple 34, with lower grades based on the loan differences. Other contracts require cotton to be within the official standards. Stipulations on some contracts specify discounts for any micronaire outside the 3.5 to 4.9 range, bark or grass content, and specified cut off dates. Prices paid growers are based on Form 1 class.

The primary contractor in 1976 was H. Molsen and Company contracting for 65 to 70 percent of the crop. Other contractors were Dunnavant Cotton Company and Brazos Cotton Company. These firms used local commission buyers in obtaining contracts. Furthermore, about 20 percent of the independent

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<sup>1/</sup> Assumes four months storage.



gins function as agents for merchants and mills. In this capacity, these agents obtain much of the free cotton. In addition, a small volume is handled through PCCA's (Lubbock, Texas) Corpus Christi office.

#### LOWER RIO GRANDE VALLEY

The Lower Rio Grande Valley is a unique cotton producing area encompassing four Texas counties--Cameron, Hidalgo, Willacy, and Starr. Although a part of the Lower Valley, there has been very little cotton production in Starr county in recent years.

Production in this area has fluctuated widely the last few years. These changes reflect the flexibility of growers to switch to competing crops when cotton prices fall relative to other crops. The impact of the cotton insect problem has also been a factor in year to year changes in the cotton acreage.

#### Cotton Varieties and Grades Varieties of Cotton Grown

Most cotton grown in the Valley is of the Stoneville variety. Stoneville 213 and Stoneville 7A accounted for 42 and 28 percent, respectively, of the cotton produced during the 1974 season. DPL 16 and TPSA 110 varieties accounted for most of the remaining acreage.

#### Cotton Grades Produced

Average grade for the 1974 crop was Strict Low Middling with an average staple length of 34 (1-1/16"). Micronaire varied slightly by counties ranging from 4.1 to 4.8, or well within the no discount range of 3.5 to 4.9 included in most contracts offered during the last season. Because of the earliness of the Valley crop, prices received by farmers generally are about 5 to 10 percent higher than those received in other parts of the Cotton Belt.





## Seed Cotton Harvesting and Handling

### Harvest Methods

Spindle-type cotton pickers are used almost exclusively to harvest the Valley crop. Only 35 cotton strippers are known to exist in the area compared with 860 spindle-type pickers. Cotton strippers are generally used only as an emergency measure to meet "plow-up" deadlines related to insect control.

### Cotton Handling

While ginners in the Rio Grande Valley area provide trailers for transporting seed cotton from farm to gin, producers generally assume responsibility for the actual movement of cotton. No direct charge is made to the producer for this service, but the producer usually provides the vehicle used to tow the trailer to the gin. Trailers are generally loaned to producers on a first-come, first-serve basis. Trailers observed at most gins were of wooden structure. Ginners indicated that most trailers used in the Valley had a capacity for five to six bales. It was reported that each active gin in the Valley owns about 74 trailers. However, many ginners feel that trailer maintenance is an expensive item. For this reason, most ginners feel they should discontinue providing this service, reduce the number of available trailers, or initiate a charge of \$3 or \$4 per trailer-load to offset expenses. Obviously, any of these alternatives would increase the growers' cost of producing and handling cotton assuming the cost of this service is not already included in ginning charges.

With both gins and production presently concentrated in rather limited areas of the Valley, average farm-to-gin hauling distance is seven to ten miles. However if area gin numbers continue to decline, average farm-to-gin distance will increase over time.



Producers and ginnerers have not adopted rick or module seed cotton storage to any significant degree. Prior to the 1974-75 season, rick storage had not been used. However, during this season, about 5,000 bales were ricked. Two gins used this handling method, but did so only because of temporary trailer shortages. The module builder has not been used in the Valley, and the consensus among industry personnel is that seed cotton storage by this method is not feasible.

### Cotton Ginning

Cotton planting in the Valley area typically begins in early February with the harvest beginning by mid-July. The peak planting season ranges from mid-March to late March, while the peak ginning season is from late July to early August. Because of uncertain weather conditions in the area, the cotton bales are moved immediately from the gin press to a warehouse thus bypassing the bale yard used in the drier areas of the Cotton Belt.

### Number of Gins and Volume

As in all other areas of the Cotton Belt, excess ginning capacity also exists in the Lower Rio Grande Valley. For example, in 1974 there were 53 active and 25 idle gins in the Valley. The active plants ginned an average of 5,409 bales per gin (table 8). Average volume per gin was considerably lower in 1975. The active gin plants have a capacity of 881.9 bales per hour. The capacity of individual gins ranged from 6.7 to 29.2 bales per hour.

Nearly 70 percent of all gins in the Valley are privately owned and operated. The remaining 30 percent are cooperative organizations. Of the 78 gins located in the area, 54 are independently owned and 24 are organized along cooperative lines. However, many if not all of the independents



Table 8. Number of gins and volumes ginned in 1974 and 1975, Lower Rio Grande area

| County  | :<br>: Total<br>: gins | :<br>: No.<br>: active | :<br>: No.<br>: idle | :<br>: Total ginnings<br>: 1974 | :<br>: 1975 | :<br>: Average volume<br>: per active gin<br>: 1974 | :<br>: 1975 |
|---------|------------------------|------------------------|----------------------|---------------------------------|-------------|-----------------------------------------------------|-------------|
| Cameron | 33                     | 23                     | 10                   | 105,487                         | 65,477      | 4,586                                               | 2,846       |
| Hidalgo | 33                     | 21                     | 12                   | 106,335                         | 71,935      | 5,064                                               | 3,425       |
| Willacy | 11                     | 9                      | 2                    | 71,008                          | 45,757      | 7,889                                               | 5,084       |
| Starr   | 1                      | 0                      | 1                    | 3,870                           | 2,875       | --                                                  | --          |
| Total   | 78                     | 53                     | 25                   | 286,700                         | 185,044     | 5,409                                               | 3,491       |

operate in a way similar to cooperatives in that rebates or other inducements are given in order to obtain and hold business.

Ginners in the Valley have tended to renovate their plants by adding modern gin stands and other equipment over the past few years. As a result, the 1975 average saw-ginning capacity was 10.2 bales per hour, or 1.6 bales per hour faster than the 1974 capacity.

Even though ginners in some areas of the Cotton Belt have moved rapidly toward the installation of the newer universal density (UD) gin press, only one UD press operated in the Valley during the 1975-76 season. This gin, located in Willacy county, delivers most of its cotton direct to the mill. Moreover, only 64 percent of the Valley gins have modified existing flat bale presses to turn out a bale that can be pressed to universal density at the compress warehouse.

Nearly all sampling of cotton bales in the Valley is done by hand. Only 12 percent of the total ginnings are sampled at the gin. The remaining





88 percent is sampled at the time cotton is received at the warehouse. Some of the cotton sampled at the gin is handled on a contract basis.

### Ginning Charges

Unlike their counterparts in other areas of the Cotton Belt, ginners in the Valley are free to set ginning rates at any level they desire, or feel that producers are willing to pay for ginning services. However, competition among gins for the limited amount of cotton tends to force ginning charges in line with ginning costs. Generally, ginning charges are quoted on a hundredweight (cwt.) basis, plus an additional charge for bagging and ties. When separate charges are not made for bagging and ties, charges per hundredweight are set high enough to offset these differences. These charges for the 1975-76 season ranged from \$2.40 to \$2.48 per hundredweight, including bagging and ties, and from \$1.28 to \$1.43 per hundredweight plus \$12.00 for bagging and ties. These charges do not include gin-warehouse transportation or baled cotton insurance. Transport costs ranged from \$1.00 per bale to \$3.50 per bale, depending on location and distance traveled to the warehouse. Fire insurance averaged \$0.63 per bale.

The typical gin in the Valley derives 84 percent of its income from ginning cotton and 94 percent of all gins in the area derive some income from selling planting seed. Buying and selling of lint is also an income activity of a number of gins in the area. During the 1974-75 season, 56 percent of the area gins bought and sold lint cotton. Gins buying lint purchased an average of 83 percent of their ginning volume for the season, or 3,860 bales per gin.

### Transportation, Warehousing and Compression

Because of the uncertainty of weather conditons prevailing in the Valley, baled cotton is moved almost immediately from the gin platform to a



warehouse or compress. Gin-owned and commercial trucks are utilized for this service. Hauling cost ranged from \$1.00 to \$3.50 per bale, but averaged about \$1.30 during the 1974-75 season. Although this charge is paid by the gin, it is included in the producer's overall ginning charge.

As with ginning, excessive warehousing capacity exists in the Valley. Eight warehouses, with a combined capacity of 488,710 bales, were available at one time to process the Valley crop. Of the five active warehouses, two are located in Brownsville, two in Harlingen, and one in Raymondville. Their combined capacity is 174,200 bales. Primary services are receiving, storage, recompression, and shipping. Charges per bale for these services during the past cotton season were: receiving \$1.35; storage \$0.75 per month, recompression, \$3.50; and shipping, \$1.75. A typical bale of cotton warehoused in the Valley incurs total charges of about \$9.38 for these services. Additional charges would be incurred if the bale were re-sampled, re-weighed, and so forth.

Domestic shipments of Valley cotton are made primarily by rail. Estimates obtained from warehousemen in the area indicate 85 percent of the movements are by rail and 15 percent are by truck. Rail and truck rates from compress points in the Valley to major mill areas and export points are shown in table 9.

#### Merchandising

Generally, cotton sales in the Valley do not differ from sales in other areas of the Cotton Belt. The price paid the producer for nearly all sales of "free" cotton is based on the USDA green card class. Local buyers, mill buyers, merchants, and commission buyers--all participate in the purchase of the Valley crop. In recent years, however, most Valley acreage has been



Table 9. Rail and truck rates by origin and primary destinations,  
Lower Rio Grande area, 1975

| Origin                  | Destination |         |       |       |
|-------------------------|-------------|---------|-------|-------|
|                         | :           | :       | :     | :     |
|                         | :           | :       | :     | :     |
|                         | :           | 200     | :     | 201   |
|                         | :           | A       | :     | B     |
|                         | :           | Houston | :     | Macon |
| <u>Dollars per bale</u> |             |         |       |       |
| Rail rates:             |             |         |       |       |
| Raymondville            | 4.65        | 9.80    | 9.40  | 8.05  |
| Harlingen               | 6.05        | 9.80    | 9.40  | 8.65  |
| Brownsville             | 6.05        | 10.25   | 9.85  | 8.65  |
| Truck rates:            |             |         |       |       |
| Raymondville            | 3.25        | 10.50   | 10.00 | 9.00  |
| Harlingen               | 3.25        | 10.50   | 10.00 | 9.00  |
| Brownsville             | 3.25        | 10.50   | 10.00 | 9.00  |

contracted prior to harvesting, leaving only a small percentage of the crop "free" for purchase in the market.

Much of the cotton purchased in the market is bought by gins acting as agents for shippers, local buyers, or others. As earlier stated, 56 percent of the Valley gins bought and sold lint cotton during the 1974-75 season.

Valley producers contracted 65 percent of their 1974 crop at prices ranging from 60 to 76 cents per pound, but most contracts were in the range of 65 to 70 cents a pound. Contracts are primarily on an acreage basis, with only a small amount of hog round contracting. Most contracts specified that all cotton delivered would be within grade according to official standards, with discounts of two cents a pound for cotton reduced in grade for grass or bark, and all staples acceptable. Some contracts specified the same discounts as the CCC loan rate for micronaire of less than 3.5, and many specified only mechanical or hand-picked cottons. A discount of two to five cents per pound was specified for delivery after mid-September.







PCCA, headquartered in Lubbock, maintains an office in the Harlingen area and handles a small amount of Valley cotton. However, because of the large acreage contracted in recent years, the seasonal volume handled by PCCA has been small.

The bulk of the Valley crop is shipped to southeastern mills with less than 100 bales shipped to a mill located in the Texas High Plains. Cotton exported from the Valley usually goes by truck to either the Brownsville, Corpus Christi, or Houston ports.

There are three cottonseed oil mills located at Harlingen. One is cooperatively-owned, and the other two independently-owned. Prior to the 1974 season when oil mills started taking official samples of seed, sales of cottonseed were made from the gin and were made on an "as is" basis. Final prices in 1973 were \$100 to \$110 per ton. With the acceptance of official grading, seed prices opened at \$120 a ton in 1974 and closed at \$150 to the gin.

There is no textile mill activity in the Valley. Further, there is no indication of future mill production in the area. A primary constraint is the lack of adequate volume.

#### SUMMARY

Cotton gins, and marketing facilities for the most part are strategically located throughout the Texas Coastal Bend and Lower Rio Grande Valley areas. The cotton production from these areas usually moves readily into both domestic and export trade channels.

There is an excess of ginning capacity in most locations. Thus, some gins are being dismantled or left idle as production declines and volume becomes too low for profitable operation.



Ginners in these areas use several methods in arriving at the cost of ginning cotton. Charges on the average ranged from \$30.17 to \$38.39 per bale in 1975, excluding the cost of fire insurance and transportation to the warehouse. In most cases the cotton is moved directly to a warehouse after ginning.

Warehousing space availability varies from area to area. In the Northern Bend, cotton is transported a considerable distance for storage as only one warehouse facility is available in the area. Most cotton from this area is transported to port facilities or directly to a cotton mill. No warehouse space is available in the Southern Bend. Most cotton from this area moves directly to a cotton mill or port facilities. On the other hand, the Lower Rio Grande Valley has an excess of warehouse space.

Producers in all of these areas have excellent access to market outlets at various locations. Cotton merchants, commission buyers, mill buyers, ginners, and cooperatives are all utilized in merchandising cotton from these areas. Forward contracting has become a common practice in these areas in recent years. Most of the cotton from all areas goes to domestic mills.

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